

ACCELERATING NETWORK PERFORMANCE BY STRIPING
AND PARALLELIZATION OF TCP CONNECTIONS

ABSTRACT OF THE DISCLOSURE

5 An architecture for optimizing network communications that utilizes a
device positioned at two edges of a constrained Wide Area Network (WAN) link.
The device intercepts outgoing network packets and reroutes them to a proxy
application. The proxy application uses multiple, preferably persistent connections
10 with a network accelerator device at the other end of the persistent connection. The
proxy applications transmit the intercepted data. Packet mangling may involve
spoofing the connection request at each end node; a proxy-to-proxy communication
protocol specifies a way to forward an original address, port, and original transport
protocol information end to end. The packet mangling and proxy-to-proxy
15 communication protocol assure network layer transparency.